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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/783,112	02/14/2001	Josh N. Hogan	10971806-3	2220

7590 05/18/2007  
HEWLETT-PACKARD COMPANY  
Intellectual Property Administration  
P.O. Box 272400  
Fort Collins, CO 80527-2400

EXAMINER
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GYORFI, THOMAS A

ART UNIT	PAPER NUMBER
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2135

MAIL DATE	DELIVERY MODE
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05/18/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/783,112	<b>Applicant(s)</b> HOGAN, JOSH N.	
	<b>Examiner</b> Tom Gyorfi	<b>Art Unit</b> 2135	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 29 November 2006 and 12 January 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 26-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 26-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                 | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                        | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

1. Claims 26-28 remain for examination. The correspondence filed 11/29/07 amended claim 27.

***Response to Arguments***

2. In view of the Appeal Brief filed on 1/12/07, PROSECUTION IS HEREBY REOPENED. New grounds of rejection are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

Kim Vu

Supervisory Patent Examiner, Art Unit 2135

***Allowable Subject Matter***

3. The indicated allowability of claim 26 is withdrawn in view of the newly discovered reference(s) to Hibi and Koford. Rejections based on the newly cited reference(s) follow.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claim 28 is rejected under 35 U.S.C. 102(b) as being anticipated by Koford et al. (U.S. Patent 4,377,862).

Regarding claim 28:

Koford discloses a data controller comprising a processor (col. 9, lines 1-10) for performing a bitwise XOR of an encryption mask (secret key, col. 8, lines 55-67) and a block of ECC-encoded data (col. 4, lines 35-40; col. 5, lines 43-55), a product of the bitwise XOR being an encrypted block (col. 10, lines 15-30).

***Claim Rejections - 35 USC § 103***

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 26 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hibi et al. (U.S. Patent 4,527,723) in view of Koford.

Regarding claim 26:

Hibi discloses a computer system comprising: a computer bus (the connections of col. 4, lines 5-15; and Figure 2); a host processor programmed to perform error code correction (element 4 of Figure 2, and col. 4, lines 20-30); and a drive (col. 4, lines 5-15) providing a block of data via the computer bus to the host processor for error code correction (col. 4, lines 20-30).

Hibi does not disclose wherein the drive encrypts the ECC-encoded block with an encryption mask to produce an encrypted block, which would then be provided over the bus to the host processor. However, Koford discloses performing a bitwise XOR of an encryption mask and a block of ECC-encoded data to produce an encrypted block (col. 8, lines 55-67; col. 10, lines 15-30) and providing the encrypted block to the computer bus to be sent to a host processor for error code correction (col. 10, lines 30-65; col. 14, lines 35-45). It would have been obvious to one of ordinary skill during at least the time the prior art disclosures were made to encrypt the data being sent between the disk drive and the CPU in the Hibi invention. The motivation for doing so would be to

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increase the sophistication of the error control techniques without reducing the data capacity of the communication system (Koford, col. 15, lines 25-37), in part by complying with what was at the time of the prior art a U.S. Department of Commerce encryption standard (Koford, col. 8, lines 55-60).

Regarding claim 27:

Hibi discloses a drive comprising a reader that provides blocks of ECC-encoded data (col. 4, lines 20-30). Although the ECC data is provided to a CPU by a controller over a communications channel, Hibi does not disclose wherein the controller performs a bitwise XOR encryption of said ECC-encoded data. However, as discussed above Koford discloses a controller for performing a bitwise XOR of an encryption mask and ECC-encoded data to produce an encrypted block (see the rejection of claim 27 for pertinent passages from Koford). It would have been obvious to one of ordinary skill during at least the time the prior art disclosures were made to encrypt the data being sent between the disk drive and the CPU in the Hibi invention. The motivation for doing so would be to increase the sophistication of the error control techniques without reducing the data capacity of the communication system (Koford, col. 15, lines 25-37), in part by complying with what was at the time of the prior art a U.S. Department of Commerce encryption standard (Koford, col. 8, lines 55-60).

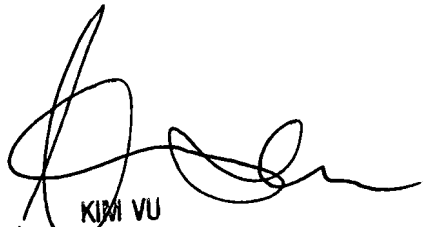
**Conclusion**

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tom Gyorfi whose telephone number is (571) 272-3849. The examiner can normally be reached on 8:30am - 5:00pm Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on (571) 272-3859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TAG  
5/14/07

  
KIM VU  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100